A PROPOSAL TO DESIGN, CONSTRUCT AND OPERATE A TRANSFER STATION FOR CITY OF BERKELEY, CALIFORNIA

PART II EXECUTIVE SUMMARY

SUBMITTED BY

BROWNING-FERRIS OF CALIFORNIA, INC.
CAMPBELL, CALIFORNIA

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Browning-Ferris Industries, Inc. (BFI), through its existing, wholly-owned subsidiary, Browning-Ferris Industries of California, Inc., proposes to design, construct, and operate for a period of one year, a solid waste transfer facility for the City of Berkeley. BFI has designed, constructed and operated transfer stations of similar capacity, and, in addition, has experience operating over-the-road transfer trailers. ECCO Construction Company, a California subsidiary of BFI has experience in constructing transfer stations and other large projects. The company's corporate based Engineering Services has a staff of multi-disciplined engineers and designers familiar with transfer station design and materials recycling. BFI proposes to call upon this experience for performing the site preparation, design, construction and operation of the proposed transfer station. The main body of the proposal amplifies BFI's previous and present involvement in transfer stations.

The facility proposed by BFI lies completely within the 261 ft. X 645 ft. allocated area. It comprises a waste receiving and transfer building, maintenance building and restrooms, vehicle wash area, interior truck body and refuse bin cleaning facility, cab interior vacuum cleaning facility, fuel island, weighmaster office and scale, employee services area, car parking area, and space for a 2300 sq. ft. administration building.

The refuse receiving building abuts the southern boundary for ease of integration with the Waste Conversion Facility (WCF). The southern wall can either be removed completely, or breached to allow transfer of the waste from the transfer station tipping floor to the WCF fuel bunker. Also, the transfer station elevated office is located in the southwest corner to have visual access to the WCF in addition to viewing the tipping floor. Any south wall modifications can be done without interrupting the normal transfer station functions. The transfer station will be left intact and could perform as a transfer station even after the WCF was built, on those occasions when the WCF was temporarily not operating.

The station will be equipped with steam/high pressure hot water units for vehicle cleaning, vacuum equipment, hand tools, weigh scales and

associated electronic readout and accounting equipment, a baler, tractor/trailer rigs for waste hauling, a front end loader, self-propelled floor sweeper, and several containers to collect recyclable materials.

The transfer building will be pre-engineered rigid frame construction with corrugated metal sides and roof. To minimize excavation costs, the building floor will be 3 ft. above grade and the transfer trailer tunnel 12 ft. below grade. The scale house will be wood-frame with vertical corrugated metal siding and asphalt roof shingles. The maintenance building, open on one end, houses restrooms and change rooms on the other end. It is a rigid frame corrugated metal-sided slab-on-grade building.

To prolong facility life, minimize repair costs and allow for a cleaner, easier maintained floor, all concrete floor surfaces inside the transfer building and the public and city/commercial vehicle apron will be covered with Masterplate wear resistant coating.

The station will be equipped with the following:

1) Diesel-fueled, rubber-tired front end loader with interchangeable bucket and forks to handle the waste in the transfer building.
2) A smaller utility loader to handle baled material and assist the front end loader during peak delivery periods.
3) Five tractors and live-bottom, open top, 110 cu. yd capacity trailers to transfer the waste to the landfill.
4) A self-propelled, ride-on sweeper to clean the building interior and on-site roads
5) A horizontal baler to bale corrugated and aluminum recycled from incoming waste.
6) Split-axle scales to monitor transfer trailer loaded weight.
7) Two utility trucks for equipment repair on the road, and general use.

City and commercial vehicles enter the property from Second Street via one-way roads and pass over a platform scale for weight recording. The weighmaster is located in a scalehouse positioned in between the city and public entrance road. From that vantage point he handles all gate fee

collections and record keeping. City/commercial trucks advance to a concrete apron where they back through any of six dumping portals at the transfer building. Public vehicles drive onto a canopy roofed concrete apron and discharge through any of 10 portals. Both types of vehicles exit onto Second Street. Queing space is maximized on the property to minimize Second Street congestion.

A rubber-tired front end loader consolidates and stacks the incoming waste and fills the waiting open top transfer trailer. The trailer is positioned on 3-axle scales and is signaled to leave when the maximum legal weight limit is reached. The weight recorded by the split axle scale is the official waste transfer weight to be used for city accounting purposes. The trailer entrance road is the 25 ft. wide strip on the east side of the property with exit for trailer traffic onto Second Street. BFI anticipates using the West Contra Costa County Landfill owned by Richmond Sanitary Services. The round trip transfer time is estimated at 1 1/4 hours (including loading and unloading).

Contingency provisions exist for scale failure by using a statistical average for city and commercial vehicles and transfer trailer weights. Failure of the front end loader will be covered by local rental of a replacement unit. For short periods of time, the small utility loader can be used on the tipping floor. A spare tractor and transfer trailer will be maintained for use if needed. Extended hauling hours are also possible if insufficient trailers are available.

On site maintenance will be limited to parts replacement, brake overhauls, tire replacement and repair, and stationary equipment repair. All major maintenance and overhaul will be done offsite.

Facility cleanliness will be maintained by using the self-propelled sweeper in the trailer tunnel, on the tipping floor and hard-surfaced roads. In addition, one man will be assigned as groundskeeper to tend the trees, shrubs and grass, and to clean up any wind blown litter or material that may have fallen from the trucks.

Vehicle ingress and egress lanes will be well-marked, and where necessary, separated by corrugated guardrail or concrete dividers. Spotters will be assigned to the city and public tipping areas to direct vehicles and assure smooth, safe traffic flow.

Transporting of recycled materials will be done on demand with a flat bed trailer for baled corrugated paper and aluminum. White goods and wooden pallets will be hauled in drop boxes.

The Facility will be open and manned 7 days per week, 8:00 AM to 5:00 PM. Cross training of personnel will be done to provide advancement and increase station reliability. The station will be operated by 15 people on week days, 8 on Saturdays and 4 on Sundays. Two men will be assigned as spotters on the tipping floor and will also pick recyclables. There will be a full time groundskeeper to maintain station cleanliness and appearance. Likewise, there will be a gate fee collector assigned solely to that task. The remainder of the work force will be operators, mechanic, clerk and manager.

The weighmaster will be responsible for all collection of monies and delivery accounting. Accounting of daily waste receipts from city, commercial, and public deliveries will be supplied to the City.

Public deliveries will be charged by estimated volume and all others will be by scale recorded weight.

Commercial customers will be extended credit and a surcharge and penalty assessed for late settling of the account.

A daily summary will be prepared showing cash sales, credit sales, vehicle count, delivered tonnage (scale recorded), and tons transferred.

A daily deposit of collected monies will be made in a separate bank account.

Environmental controls will be practiced with an aggressive cleanliness program. Litter will be kept to a minimum by design, and

frequent area inspections. The tipping floor will be regularly cleared and swept. Odor and insect abatement sprays will be used. Attractive landscaping will be done and hearty grasses planted to minimize dust and mud. Lime removal will be done where justified by construction planned for that specific area.

The proposed costs are detailed in Part I of this two part proposal. They are divided into: initial capital cost, first year operating personnel costs, first year operating and maintenance costs, and total cost summary.

This proposal and the subsequent implementation of the design is a co-operative effort between BFI's corporate based Engineering Services and Browning-Ferris Industries of California. Continued liaison would assure satisfactory implementation of the final design approved by the city.

A licensed California engineer will perform the structural and foundation calculations. (Floyd Weaver, of Santa Ana, California).

Detailed drawings will be prepared by a licensed California Architect and Engineering firm. The proposed schedule could be accelerated to accomplish station completion by May 1, 1983.

A separate BFI line company will be formed to operate the facility under the direction of BFI's existing San Diego County, Palomar Transfer Station manager, Don Schmid. A plant manager will be named to report to Schmid.

A review of the waste stream composition, community involvement and city encouragement of source separation indicates a reasonable commitment to recycling is two percent, by weight, of the incoming waste stream. No mechanical separation is proposed. Hand-picking of corrugated paper, aluminum, white goods and wooden pallets will be performed on the tipping floor.

BFI fully supports the City's dedication to the use of minority businesses. Appended to Part I of this proposal is a detailed description of BFI's plan to use minority enterprises to the maximum possible during all phases of design, construction and operation of the station.

Also attached to Part I is the number and categories by ethnic origin of those employees now employed by Browning-Ferris Industries of California, Inc.